

<110> Paul DeAngelis  
<120> CHONDROITIN SYNTHASE GENE AND METHODS OF MAKING AND USING SAME  
<130> 5820.601  
<140> Not Yet Assigned  
<141> Herewith  
<160> 7  
<170> WordPerfect 8.0 (saved in ASCII format)  
<210> 1  
<211> 2941 base pairs  
<212> DNA  
<213> Pasteurella Multocida  
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121 aaatttatttgc agaagtctgc tgaaacctac gggcgaaaaa tcgttgaatt ccaaattatc  
181 aaatgtaaag aaaaactctc gaccaattct tatgttaagtga aagataaaaaa aaacagtgtt  
241 tgcgatagct cattagatat cgcaacacag ctcttacttt ccaacgtaaa aaaattaact  
301 ctatccgaat cagaaaaaaa cagttaaaaa aataaatggaa aatctatcac tggaaaaaaa  
361 tcggagaacg cagaaatcag aaaggtggaa ctgttaccca aagattttcc taaagatctt  
421 gttcttgctc cattgccaga tcatgttaat gattttacat ggtacaaaaaa tcgaaaaaaa  
481 agcttaggtt taaaggctgt aaataagaat atcggctttt ctattattat tcctacattt  
541 aatcgtagcc gtatTTTtga tataacgtta gcctgtttgg tcaatcgaaa aacaaactac  
601 ccatttgaag tcgttggc agatgttgtt agtaaggaaa acttacttac cattgtgca  
661 aaatacgaac aaaaacttga cataaagtat gtaagacaaa aagattatgg atatcaattg  
721 tgtcagtca gaaactttagg tttacgtaca gcaaagtatg atttgtctc gattctagac  
781 tgcgatattgg caccacaaca attatgggtt catttttac ttacagaact attagaagac  
841 aatgatatttgg ttttaattgg acctagaaaaa tatgtggata ctcataatata taccgcagaa  
901 caattcccta acgatccata tttaatagaa tcactacctg aaaccgctac aaataacaat  
961 ccttcgatta catcaaaaagg aaatatacg ttggatttgg gattagaaca tttcaaaaaaa  
1021 accgataatc tacgtctatg tgattctccg tttcggttatt ttgttgcggg taatgttgc  
1081 tttctaaag aatggctaaa taaagttaggt tggttcgtat aagaatttaa tcattgggg  
1141 ggcgaagatg tagaatttgg ttacagatta tttgc当地 aacttgc当地 aacttgc当地  
1201 gacggcggaa tggccatcca tcaagaacca cctggtaag aaaaatgaaac agaacgc当地  
1261 gctgttaaaa gtattacgt taaaattgtg aaagaaaaagg taccttacat ctatagaaag  
1321 ctttaccaa tagaagattc acatattcat agaatacctt tagttctat ttatatcccc  
1381 gcttataact gtgcaaatta tattcaaga tttgttagata gtgtctt当地 tcaaactgtt  
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1741 gctaattggttt acaattggcc agaattttca cggaaaaac tcacaacggc tatgattgt  
1801 caccatttttta gaatgtttac gatttagatc tggcatttaa cggatggatt taacgaaaat  
1861 attgaaaacg ccgtggatta tgacatgtt当地 cttaaactca gtgttttgg aaaaatttt  
1921 catcttaata aatctgtca taaccgc当地 ttacatgtt当地 ataacacatc cattaagaaa  
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2101 aataaaacccg ctgaatatac agaagaaaaatg gatatgtt当地 aagatctt当地 actcattca  
2161 aataaaagatg ccaaaaatcgc agtcaatc ttctatccc当地 atacattttt当地 cggctt  
2221 aaaaactaa acaatattat tgaatataat aaaaatataat tcgttattat tctacatgtt  
2281 gataagaatc atcttacacc agacatcaaa aagaaaaatg tggcttctt当地 tcataaggc  
2341 caagtgaata ttttactaaa taatgacatc tcatattaca cggatgtt当地 actaataaaaa  
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2581 ggcacatccac cattttttt当地 gctgattttt当地 acctattttt当地 atgacaatgtt当地  
cttaagaatgtt当地

2641 atgaatgtga aaggggcattt acaaggatgttttatgaagt atgcgctacc gcatgagctt  
2701 ctgacgatta tttaaaaagaatgttttcatcacatcc tgccaaatcaa ttgtatgtgtt gccagaatat  
2761 aacactgagg atatttggtt ccaatttgca cttttaatctt tagaaaaagaa aaccggccat  
2821 gtatttaata aaacatcgac cctgacttat atgccttggg aacgaaaatt acaatggaca  
2881 aatgaacaaa ttcaaagtgc aaaaaaaggc gaaaatatcc ccgttaacaa gttcatttattt  
2941 aatagtataaa cgctataaaaa catttgcatt ttattaaaa

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<110> Paul DeAngelis  
<120> CHONDROITIN SYNTHASE GENE AND METHODS OF MAKING AND USING SAME  
<130> 5820.601  
<140> Not Yet Assigned  
<141> Herewith  
<160> 7  
<170> WordPerfect 8.0 \*Software\*  
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<211> 961 base pairs  
<212> PRT  
<213> Pasteurella Multocida  
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121 vlaplpdhvn dftwyknrrk slgikpvnkn iglsiiiptf nrsrilditl aclvnqktny  
181 pfevvvaddg skenlltivq kyeqkldiky vrqkdygyql cavrnlglrt akydfvsild  
241 cdmapqqlwv hsyltelled ndivligprk yvdthnitae qflndpylie slpetatnnn  
301 psitskgnis ldwrlehfkk tdnrlrcdsp fryfvagnva fskewlkvgs wfdeefnhwg  
361 gedvefgyrl fakgcffrvi dggmaihqep pgkenetere agksitlkiv kekvpyiyrk  
421 llpiedshih riplvsiyip ayncanyiqr cvdsalnqtv vdlevcicnd gstdntlevi  
481 nklygnnprv rimskpnnngi asasnaavsf akgyyigqld sddylepdav elclkeflkd  
541 ktlacyvttn rnvnpdgsli angynwpefs reklttamia hhfrmftira whldgfnen  
601 ienavdydmf lklsevgkfk hlinkcynrv lhgdntsikk lgiqkknhfv vvnqslnrqg  
661 inyyynydkfd dldesrkyif nktaeyqeem dmlkdlkliq nkdakiavsi fypntlnglv  
721 kklnniieyn knifviilhv dknhltpdik keilafyhkh qvnillnnndi sytsnrlik  
781 teahlsnink lsqlnlncey iifdnhdslf vkndsyaymk kydvgnmfsa lthdwiekin  
841 ahppfklik tyfndndlrs mnvkgasqgm fmkyalphel ltiikevits cqsidsvpney  
901 ntediwfqfa llilekktgh vfnktstlty mpwerkqlqwt neqiqsakkgn enipvnkfii  
961 nsitl

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<110> Paul DeAngelis  
<120> CHONDROITIN SYNTHASE GENE AND METHODS OF MAKING AND USING SAME  
<130> 5820.601  
<140> Not Yet Assigned  
<141> Herewith  
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121 aaattatttg agaagtctgc tggaaacctac gggcgaaaaaa tcgttqaatt ccaaattatc  
181 aaatgtaaaag aaaaactctc gaccaattct tatgtaaatg aagataaaaaa aaacagtgtt  
241 tgcgatagct cattagatat cgcaacacag ctcttacttt ccaacgtaaa aaaattaact  
301 ctatccgaat cagaaaaaaaaa cagttaaaaa aataaaatgga aatctatcac tggggaaaaaa  
361 tcggagaacg cagaaatcag aaaggtggaa ctgtaccac aagattttcc taaagatctt  
421 gttcttgctc cattgccaga tcatgttaat gatttacat ggtacaaaaa tcgaaaaaaa  
481 agcttaggtt aaaaagctgt aataaagaat atcggctttt ctattattat tcctacattt  
541 aatcgttagcc gtatTTTaa tataacgtta gcctgtttgg tcaatcagaa aacaaactac  
601 ccatttgaag tcgttggc agatgttgtt agtaaggaaa acttacttac cattgtgca  
661 aaatacgaac aaaaacttga cataaagtat gtaagacaaa aagattatgg atatcaattt  
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961 ctttcgatta catcaaaagg aaatataatcg ttggatttgg gattagaaca tttcaaaaaaa  
1021 accgataatc tacgtctatg tgattctccg ttctttttt ttatgtgcgg taatgttgca  
1081 ttttctaaag aatggctaaa taaatgttgtt tggatcgatg aagaattttaa tcattgggg  
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1201 gacggcggaa tggcatacca tcaagaacca cctggtaaag aaaatgaaac agaccgcgaa  
1261 gctggtaaaa gtattacgct taaaattgtt aaagaaaagg taccttacat ctatagaaag  
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1921 catcttaata aatctgtca taaccgcgtt ttacatgggtt ataacacatc cattaagaaa  
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2041 atcaattttt ataaattatgtt caaattttgtt gatttagatg aaagtagaaaa gtatatctt  
2101 aataaaacgg ctgaatataca agaagaaaatg gatattttaa aagatcttactcattca  
2161 aataaaagatg cccaaatcgc agtcagtatt ttctatccc atacattaaa cggcttagtg  
2221 aaaaaactaa acaatattat tgaatataat aaaaatataat tcgttattat tctacatgtt  
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2341 caagtgaata ttttactaaa taatgacatc tcatattaca cgagtaatag actaataaaaa  
2401 actaggcac atttaagttt tattataaaa ttaatgttac taaatctaaa ttgtgaatac  
2461 atcatTTTTG ataaatcatgtt cagccttattt gttaaaaatg acagcttatgc ttatatgaaa  
2521 aataatgtatg tcggcatgaa tttctcagca ttaacacatg attggatcga gaaaatcaat

2581 gcgcatccac catttaaaaa gctgattaaa acctattta atgacaatga cttaagaagt  
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2701 ctgacgatta ttaaagaagt catcacatcc tgccaatcaa ttgatagtgt gccagaatat  
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2821 gtatttaata aaacatcgac cctgacttat atgccttggg aacgaaaatt acaatggaca  
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<110> Paul DeAngelis  
<120> CHONDROITIN SYNTHASE GENE AND METHODS OF MAKING AND USING SAME  
<130> 5820.601  
<140> Not Yet Assigned  
<141> Herewith  
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121 vlaplpdhvn dftwyknrrk slgikpvnkn iglsiiiptf nrsrilditl aclvnqktny  
181 pfevvvaddg skenlltivq kyeqkldiky vrqkdgyqql cavrnlgirt akydfvsild  
241 cdmapqqlwv hsyltelled ndivligprk yvdthnitae qflndpylie slpetatnnn  
301 psitskgnis ldwrlehfkk tdnrlcdsp fryfscgnva fskewlnkvg wfdeefnhwg  
361 gedvefgyr1 fakgcffrvi dggmayhqep pgkenetdre agksitlkiv kekvpyiyrk  
421 llpiedshih riplvsiyip ayncanyiqr cvdsalnqtv vdlevcicnd gstdntlevi  
481 nklygnnprv rimekpnggi asasnaavsf akgyyigqld sddylepdav elclkeflkd  
541 ktlacyvttm rnvnpdgsli angynwpefs reklttamia hhfrmftira whldgfnen  
601 ienavdydmf lklsevgkfk hlnkicynrv lhgdntsikk lgiqkknhfv vvngslnrqg  
661 inyyynydkfd dldesrkyif nktaeyqeem dilkdlkliq nkdakiavsi fypntlglv  
721 kklnniieyn knifviilhv dknhltpdik keilafyhkh qvnillnnndi syytsnrlik  
781 teahlsnink lsqlnlncey iifdnhdslf vkndsyaymk kydvgmnfsa lthdwiekin  
841 ahppfkklik tyfndndlrs mnvksgasqgm fmkyalphel ltiikevits cqsidsvpey  
901 ntediwfqfa llilekktgh vfnktstlty mpwerklqwt neqiqsakkg enipvnkfii  
961 nsitl

<110> Paul DeAngelis  
<120> CHONDROITIN SYNTHASE GENE AND METHODS OF MAKING AND USING SAME  
<130> 5820.601  
<140> Not Yet Assigned  
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<400> Primer

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<110> Paul DeAngelis  
<120> CHONDROITIN SYNTHASE GENE AND METHODS OF MAKING AND USING SAME  
<130> 5820.601  
<140> Not Yet Assigned  
<141> Herewith  
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<110> Paul DeAngelis  
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<130> 5820.601  
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<400> Antibody

## LDSDDYEPDAVELCLKEF